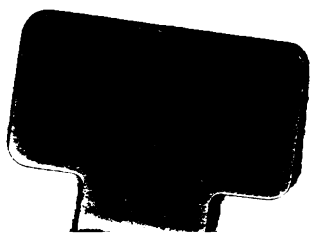

TABLES

SHOWING THE VALUES OF

LIFE INTERESTS AND REVERSIONS

AS FOUND BY VARIOUS FORMULÆ AND AT DIFFERENT RATES OF INTEREST

FORMING A SUPPLEMENT TO

"A POPULAR TREATISE ON THE VALUE OF LIFE INTERESTS AND REVERSIONS"

BY

F. A. C. HARE

AUTHOR OF

"LIFE ASSURANCE MADE EASY" "HARE'S LIFE TABLES, NOS. 1, 2 AND 2A"

"BONUSES" ETC. ETC.

LONDON

F. A. C. HARE, 111 FINSBURY PARK ROAD

1883

Price Half-Crown

TABLE I.—TABLE showing the value of a Life Interest in possession of £1 per annum, so as to allow the purchaser 4, 4½, or 5 per cent. on the outlay for different values of the Insurance Premium for £100, from £1. 10s. to £8, at intervals of 1s.

Where the Insurance Premium is not an exact number of pounds and shillings, the exact value of the corresponding Life Interest may be found by interpolation.

Premium to insure £100			4	4½	5	Premium to insure £100			4	4½	5
£	s.	d.				£	s.	d.			
1	10	0	17·706	16·224	14·970	4	16	0	10·566	9·982	9·458
1	11	0	17·532	16·076	14·843	4	17	0	10·500	9·922	9·404
1	12	0	17·362	15·932	14·719	4	18	0	10·434	9·863	9·350
1	13	0	17·195	15·790	14·596	4	19	0	10·369	9·804	9·297
1	14	0	17·031	15·650	14·475	5	0	0	10·305	9·746	9·244
1	15	0	16·870	15·513	14·357	5	1	0	10·241	9·688	9·192
1	16	0	16·712	15·377	14·239	5	2	0	10·177	9·632	9·140
1	17	0	16·556	15·244	14·124	5	3	0	10·116	9·576	9·089
1	18	0	16·403	15·113	14·011	5	4	0	10·055	9·520	9·038
1	19	0	16·253	14·985	13·899	5	5	0	9·994	9·465	8·988
2	0	0	16·106	14·858	13·789	5	6	0	9·934	9·410	8·938
2	1	0	15·960	14·733	13·680	5	7	0	9·874	9·356	8·889
2	2	0	15·818	14·610	13·573	5	8	0	9·815	9·302	8·841
2	3	0	15·678	14·489	13·468	5	9	0	9·757	9·250	8·792
2	4	0	15·540	14·370	13·364	5	10	0	9·700	9·198	8·745
2	5	0	15·404	14·253	13·261	5	11	0	9·643	9·146	8·698
2	6	0	15·270	14·138	13·160	5	12	0	9·587	9·095	8·651
2	7	0	15·138	14·024	13·061	5	13	0	9·531	9·044	8·604
2	8	0	15·010	13·912	12·963	5	14	0	9·476	8·994	8·558
2	9	0	14·883	13·802	12·866	5	15	0	9·421	8·944	8·513
2	10	0	14·758	13·693	12·770	5	16	0	9·367	8·895	8·468
2	11	0	14·635	13·586	12·676	5	17	0	9·314	8·845	8·423
2	12	0	14·513	13·480	12·583	5	18	0	9·261	8·798	8·379
2	13	0	14·394	13·376	12·492	5	19	0	9·209	8·751	8·335
2	14	0	14·277	13·273	12·401	6	0	0	9·157	8·704	8·292
2	15	0	14·161	13·172	12·312	6	1	0	9·105	8·656	8·249
2	16	0	14·047	13·073	12·224	6	2	0	9·054	8·610	8·206
2	17	0	13·971	12·974	12·137	6	3	0	9·004	8·564	8·164
2	18	0	13·823	12·877	12·052	6	4	0	8·954	8·518	8·123
2	19	0	13·715	12·782	11·967	6	5	0	8·905	8·473	8·081
3	0	0	13·607	12·687	11·883	6	6	0	8·856	8·429	8·040
3	1	0	13·501	12·594	11·801	6	7	0	8·808	8·384	7·999
3	2	0	13·397	12·503	11·719	6	8	0	8·760	8·341	7·959
3	3	0	13·294	12·412	11·639	6	9	0	8·713	8·297	7·919
3	4	0	13·192	12·323	11·560	6	10	0	8·666	8·254	7·879
3	5	0	13·092	12·235	11·481	6	11	0	8·619	8·211	7·840
3	6	0	12·994	12·148	11·404	6	12	0	8·573	8·169	7·801
3	7	0	12·897	12·062	11·328	6	13	0	8·526	8·127	7·763
3	8	0	12·801	11·977	11·252	6	14	0	8·481	8·086	7·725
3	9	0	12·706	11·893	11·177	6	15	0	8·438	8·045	7·687
3	10	0	12·613	11·811	11·104	6	16	0	8·393	8·004	7·649
3	11	0	12·521	11·729	11·031	6	17	0	8·349	7·964	7·612
3	12	0	12·430	11·649	10·959	6	18	0	8·306	7·924	7·575
3	13	0	12·340	11·570	10·888	6	19	0	8·263	7·884	7·538
3	14	0	12·252	11·491	10·818	7	0	0	8·220	7·845	7·502
3	15	0	12·165	11·414	10·748	7	1	0	8·178	7·806	7·466
3	16	0	12·079	11·338	10·680	7	2	0	8·136	7·767	7·430
3	17	0	11·994	11·262	10·612	7	3	0	8·094	7·729	7·395
3	18	0	11·910	11·187	10·545	7	4	0	8·053	7·691	7·360
3	19	0	11·827	11·114	10·479	7	5	0	8·012	7·654	7·325
4	0	0	11·745	11·041	10·413	7	6	0	7·972	7·615	7·291
4	1	0	11·665	10·967	10·348	7	7	0	7·932	7·579	7·256
4	2	0	11·585	10·896	10·284	7	8	0	7·892	7·543	7·222
4	3	0	11·506	10·826	10·221	7	9	0	7·853	7·506	7·189
4	4	0	11·429	10·756	10·158	7	10	0	7·814	7·470	7·155
4	5	0	11·352	10·688	10·096	7	11	0	7·775	7·434	7·122
4	6	0	11·276	10·620	10·035	7	12	0	7·737	7·399	7·089
4	7	0	11·201	10·553	9·975	7	13	0	7·699	7·364	7·057
4	8	0	11·127	10·487	9·915	7	14	0	7·661	7·329	7·024
4	9	0	11·054	10·421	9·856	7	15	0	7·624	7·295	6·992
4	10	0	10·982	10·356	9·797	7	16	0	7·587	7·260	6·961
4	11	0	10·910	10·292	9·739	7	17	0	7·550	7·226	6·929
4	12	0	10·340	10·228	9·682	7	18	0	7·514	7·193	6·898
4	13	0	10·770	10·166	9·625	7	19	0	7·477	7·159	6·867
4	14	0	10·701	10·104	9·569	8	0	0	7·442	7·126	6·836
4	15	0	10·633	10·042	9·513						

TABLE II.—ABSOLUTE REVERSIONS, CARLISLE BASE.

Age	$1-d_{4\frac{1}{2}}^{(1+a)_{3\frac{1}{2}}}$	$1-d_{4\frac{1}{2}}^{(1+a)_{3\frac{1}{2}}}$	$1-d_{5}^{(1+a)_{3\frac{1}{2}}}$	$1-d_{5}^{(1+a)_{3\frac{1}{2}}}$	$A_5=1-d_5^{(1+a)_5}$	$A_{5\frac{1}{2}}=1-d_{5\frac{1}{2}}^{(1+a)_{5\frac{1}{2}}}$	$A_6=1-d_6^{(1+a)_6}$
0	·313277.	·282107	·240553	·206083	·37700	·36373	·35251
1	·210735	·174504	·127153	·087085	·28595	·27164	·25974
2	·157936	·119180	·068762	·025915	·23891	·22403	·21179
3	·113481	·072721	·019599	negative	·19886	·18334	·17065
4	·090393	·048739	negative	,,	·17757	·16161	·14857
5	·074377	·032215	,,	,,	·16238	·14597	·13255
6	·067742	·025563	,,	,,	·15548	·13866	·12491
7	·075986	·024037	,,	,,	·15286	·13567	·12163
8	·067438	·025877	,,	,,	·15305	·13553	·12117
9	·071022	·029968	,,	,,	·15514	·13731	·12264
10	·076165	·035683	,,	,,	·15862	·14049	·12558
11	·082080	·043199	,,	,,	·16281	·14438	·12921
12	·087934	·048657	,,	,,	·16695	·14821	·13277
13	·093872	·055203	,,	,,	·17114	·15212	·13640
14	·099898	·061841	·006579	,,	·17543	·15612	·14013
15	·105892	·068426	·011206	,,	·17967	·16007	·14381
16	·111533	·074660	·017446	,,	·18362	·16369	·14715
17	·116960	·080672	·023447	,,	·18733	·16710	·15026
18	·122454	·086749	·029522	,,	·19110	·17056	·15343
19	·128153	·093037	·035826	,,	·19505	·17419	·15677
20	·134025	·099547	·042358	·004191	·19919	·17801	·16028
21	·140190	·106288	·049137	·011645	·20352	·18203	·16402
22	·146702	·113418	·056338	·019530	·20819	·18638	·16809
23	·153458	·120805	·063810	·027700	·21310	·19098	·17240
24	·160473	·128462	·071569	·036167	·21824	·19582	·17692
25	·167761	·136399	·089628	·044945	·22367	·20092	·18174
26	·175193	·144483	·087847	·053885	·22919	·20617	·18672
27	·182914	·152866	·096386	·063155	·23500	·21170	·19198
28	·190655	·161268	·104946	·072447	·24086	·21726	·19725
29	·198011	·169252	·113081	·081277	·24633	·22244	·20211
30	·204790	·176651	·120578	·089460	·25129	·22709	·20642
31	·211676	·184159	·128193	·093763	·25633	·23182	·21083
32	·218829	·191925	·136104	·106351	·26162	·23677	·21547
33	·226368	·200106	·144441	·115398	·26729	·24212	·22051
34	·234351	·208724	·153270	·124929	·27333	·24788	·22594
35	·242621	·217653	·162415	·134803	·27967	·25393	·23172
36	·254252	·226908	·175278	·145038	·28633	·26030	·23783
37	·259996	·236359	·181631	·155490	·29319	·26689	·24411
38	·268978	·246014	·191564	·166168	·30024	·27369	·25062
39	·278187	·255882	·201748	·177081	·30752	·28072	·25736
40	·287330	·265683	·211859	·187920	·31477	·28769	·26404
41	·296124	·275122	·221588	·198359	·32167	·29433	·27038
42	·304826	·284462	·231308	·208788	·32852	·30088	·27666
43	·313570	·293836	·240878	·219054	·33538	·30750	·28294
44	·322635	·303532	·250903	·229777	·34257	·31439	·28957
45	·332005	·313564	·261265	·240871	·35010	·32164	·29653
46	·341904	·324070	·272213	·252520	·35810	·32941	·30400
47	·352291	·335157	·283700	·264751	·36662	·33771	·31204
48	·353325	·346918	·295946	·277757	·37586	·34678	·32087
49	·375482	·359704	·309346	·291898	·38610	·35689	·33077

TABLE II.—[illegible]—*continued*.

Age	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·34164
51	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·35347
52	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·36558
53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·37804
54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·39089
55	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·40431
56	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·41812
57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·43243
58	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·44687
59	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·46062
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·47336
61	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·48445
62	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·49549
63	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·50676
64	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·51875
65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·53126
66	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·54440
67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·55832
68	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·57287
69	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·58809
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·60389
71	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·62053
72	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·63638
73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·65075
74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·66355
75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·67396
76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·68421
77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·69377
78	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·70351
79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·71472
80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·72502
81	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·73645
82	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·74675
83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·75740
84	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·76781
85	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
86	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·78836
87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·79628
88	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·80101
89	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·80658
90	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·81513
91	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·81615
92	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·81111
93	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·81853	·80528
94	·841908	·841019	·825100	[illegible]	[illegible]	·81603	·80234
95	·840900	[illegible]	[illegible]	[illegible]	[illegible]	·81456	·80064
96	[illegible]	·842109	[illegible]	[illegible]	[illegible]	·81614	·80268
97	·848893	·848210	·832891	[illegible]	[illegible]	·82332	·80936
98	·855855	·855319	·840531	[illegible]	[illegible]	·83121	·81734
99	·866522	[illegible]	[illegible]	·851901	[illegible]	·84241	·82996

$$A_x = 1 - [(1-v)(1+a_x)] = \frac{1-ia_x}{1+i} = \frac{M_x}{D_x}$$

and provided the discount be taken at the same rate of interest as is used in calculating the life-annuity $(1-v)(1+a_x) = A_x$.

CONVERSION OR ASSURANCE TABLES,

Formed on the relation of *A*, the present value of an Assurance, to *a*, the present value of an Annuity.

They serve to show at a glance the present value of £1 due at any future time, allowing the purchaser a given rate of interest for his money, to be secured by an annuity. If the purchaser, for example, require 4½ per cent. for his money, first ascertain for what sum an annuity for the period can be purchased; then turn to the 4½ per cent. Conversion Table, and find in the first column the number of years' purchase of such an annuity, and on that line and in the column headed by the first decimal figure in the annuity-value will be found the value of the reversion. If greater accuracy be required, the correction for the second and third decimals is given in the Supplementary Table, and the same table may be applied for the fourth and fifth by removing the figures two places to the right.

TABLE III.—CONVERSION TABLE 4 per cent.

Years	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9
0	·961538	·957692	·953486	·950000	·946154	·942308	·938462	·934615	·930679	·926923
1	·923077	·919231	·915385	·911538	·907692	·903846	·900000	·896154	·892308	·888462
2	·884615	·880769	·876923	·873077	·869231	·865385	·861538	·857692	·853846	·850000
3	·846154	·842308	·838462	·834615	·830769	·826923	·823077	·819231	·815385	·811538
4	·807692	·803846	·800000	·796154	·792308	·788462	·784615	·780769	·776923	·773077
5	·769231	·765385	·761538	·757692	·753846	·750000	·746154	·742308	·738462	·734615
6	·730769	·726923	·723077	·719231	·715385	·711538	·707692	·703846	·700000	·696154
7	·692308	·688462	·684615	·680769	·676923	·673077	·669231	·665385	·661538	·657692
8	·653846	·650000	·646154	·642308	·638462	·634615	·630769	·626923	·623077	·619231
9	·615385	·611538	·607692	·603846	·600000	·596154	·592308	·588462	·584615	·580769
10	·576923	·573077	·569231	·565385	·561538	·557692	·553846	·550000	·546154	·542308
11	·538462	·534615	·530769	·526923	·523077	·519231	·515385	·511538	·507692	·503846
12	·500000	·496154	·492308	·488462	·484615	·480769	·476923	·473077	·469231	·465385
13	·461538	·457692	·453846	·450000	·446154	·442308	·438462	·434615	·430679	·426923
14	·423077	·419231	·415385	·411538	·407692	·403846	·400000	·396154	·392308	·388462
15	·384615	·380679	·376923	·373077	·369231	·365385	·361538	·357692	·353846	·350000
16	·346154	·342308	·338462	·334615	·330769	·326923	·323077	·319231	·315385	·311538
17	·307692	·303846	·300000	·296154	·292308	·288462	·284615	·280769	·276923	·273077
18	·269231	·265385	·261538	·257692	·253846	·250000	·246154	·242308	·238462	·234615
19	·230769	·226923	·223077	·219231	·215385	·211538	·207692	·203846	·200000	·196154
20	·192308	·188462	·184615	·180769	·176923	·173077	·169231	·165385	·161538	·157692
21	·153846	·150000	·146154	·142308	·138462	·134615	·130769	·126923	·123077	·119231
22	·115385	·111538	·107692	·103846	·100000	·096154	·092308	·088462	·084615	·080769
23	·076923	·073077	·069231	·065385	·061538	·057692	·053846	·050000	·046154	·042308
24	·038462	·034615	·030769	·026923	·023077	·019231	·015385	·011538	·007692	·003846

Proportional deduction for 2nd and 3rd decimal figures.

2nd figs	THIRD FIGURES.									
	0	1	2	3	4	5	6	7	8	9
0	0000	0038	0077	0115	0154	0192	0231	0269	0308	0346
1	0385	0423	0462	0500	0538	0577	0615	0654	0692	0731
2	0769	0808	0846	0885	0923	0962	1000	1038	1077	1115
3	1154	1192	1231	1269	1308	1346	1385	1423	1462	1500
4	1538	1577	1615	1654	1692	1731	1769	1808	1846	1885
5	1923	1962	2000	2038	2077	2115	2154	2192	2231	2269
6	2308	2346	2385	2423	2462	2500	2538	2577	2615	2654
7	2692	2731	2769	2808	2846	2885	2923	2962	3000	3038
8	3077	3115	3154	3192	3231	3269	3308	3346	3385	3423
9	3462	3500	3538	3577	3615	3654	3692	3731	3769	3808

TABLE IV.—CONVERSION TABLE 4¼ per cent.

Years	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9
0	·959233	·955156	·951079	·947002	·942926	·938849	·934772	·930696	·926619	·922542
1	·918465	·914388	·910312	·906234	·902158	·898082	·894005	·889928	·885852	·881775
2	·877698	·873621	·869544	·865467	·861391	·857314	·853238	·849161	·845084	·841007
3	·836930	·832854	·828777	·824699	·820624	·816547	·812470	·808393	·804317	·800240
4	·796163	·792086	·788010	·783932	·779856	·775779	·771703	·767626	·763549	·759473
5	·755396	·751319	·747242	·743164	·739089	·735012	·730935	·726859	·722782	·718705
6	·714628	·710551	·706475	·702397	·698321	·694245	·690168	·686091	·682015	·677938
7	·673861	·669784	·665707	·661630	·657554	·653477	·649401	·645324	·641247	·637170
8	·633093	·629017	·624940	·620862	·616787	·612710	·608633	·604557	·600480	·596403
9	·592326	·588249	·584173	·580095	·576019	·571942	·567866	·563789	·559712	·555636
10	·551559	·547482	·543405	·539326	·535252	·531175	·527098	·523022	·518945	·514868
11	·510791	·506714	·502638	·498559	·494484	·490408	·486331	·482254	·478178	·474101
12	·470024	·465947	·461870	·457792	·453717	·449640	·445564	·441487	·437410	·433333
13	·429256	·425180	·421103	·417024	·412950	·408873	·404796	·400719	·396643	·392566
14	·388489	·384412	·380336	·376257	·372182	·368106	·364029	·359952	·355875	·351799
15	·347722	·343645	·339568	·335489	·331415	·327338	·323261	·319185	·315108	·311031
16	·306954	·302877	·298801	·294722	·290647	·286571	·282494	·278417	·274341	·270264
17	·266187	·262110	·258033	·253955	·249880	·245803	·241727	·237650	·233573	·229496
18	·225319	·221343	·217266	·213187	·209113	·205036	·200959	·196882	·192806	·188729
19	·184552	·180575	·176499	·172420	·168345	·164268	·160192	·156115	·152038	·147962
20	·143785	·139808	·135731	·131652	·127578	·123501	·119424	·115348	·111271	·127194
21	·103017	·099040	·094964	·090885	·086810	·082734	·078657	·074580	·070504	·066427
22	·062250	·058273	·054196	·050118	·046043	·041966	·037890	·033813	·029736	·025659
23	·021482	·017506	·013329	·009350	·005276	·001199				

Proportional deduction for 2nd and 3rd decimal figures.

2nd figs	THIRD FIGURES.									
	0	1	2	3	4	5	6	7	8	9
0	0000	0041	0082	0122	0163	0204	0245	0285	0326	0367
1	0408	0448	0489	0530	0571	0612	0652	0693	0734	0775
2	0815	0856	0897	0938	0978	1019	1060	1101	1141	1182
3	1223	1264	1305	1345	1386	1427	1468	1508	1549	1590
4	1631	1671	1712	1753	1794	1835	1875	1916	1957	1998
5	2038	2079	2120	2161	2201	2242	2283	2324	2364	2405
6	2446	2487	2528	2568	2609	2650	2691	2731	2772	2813
7	2854	2894	2935	2976	3017	3058	3098	3139	3180	3221
8	3261	3302	3343	3384	3424	3465	3506	3547	3587	3628
9	3669	3710	3751	3791	3832	3873	3913	3954	3995	4036

TABLE V.—CONVERSION TABLE 4⅓ per cent.

Years	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9
0	·956938	·952632	·948325	·944019	·939713	·935407	·931101	·926794	·922488	·918182
1	·913876	·909569	·905263	·900957	·896651	·892345	·888038	·883732	·879426	·875120
2	·870813	·866507	·862201	·857895	·853589	·849282	·844976	·840670	·836364	·832058
3	·827751	·823445	·819139	·814833	·810526	·806220	·801914	·797608	·793302	·788995
4	·784689	·780383	·776077	·771770	·767464	·763158	·758852	·754546	·750239	·745933
5	·741627	·737321	·733014	·728708	·724402	·720096	·715790	·711483	·707177	·702871
6	·698565	·694258	·689952	·685646	·681340	·677034	·672727	·668421	·664115	·659809
7	·655502	·651196	·646890	·642584	·638278	·633971	·629665	·625359	·621053	·616747
8	·612440	·608134	·603828	·599522	·595215	·590909	·586603	·582297	·577991	·573684
9	·569378	·565072	·560766	·556459	·552153	·547847	·543541	·539235	·534928	·530622
10	·526316	·522010	·517703	·513397	·509091	·504785	·500479	·496172	·491866	·487560
11	·483254	·478947	·474641	·470335	·466029	·461723	·457416	·453110	·448804	·444498
12	·440191	·435885	·431579	·427273	·422967	·418660	·414354	·410048	·405742	·401436
13	·397129	·392823	·388517	·384211	·379904	·375598	·371292	·366986	·362680	·358373
14	·354067	·349761	·345455	·341148	·336842	·332536	·328230	·323924	·319617	·315311
15	·311005	·306699	·302392	·298086	·293780	·289474	·285168	·280861	·276555	·272249
16	·267943	·263636	·259330	·255024	·250718	·246412	·242105	·237799	·233493	·229187
17	·224880	·220574	·216268	·211962	·207656	·203349	·199043	·194737	·190431	·186125
18	·181818	·177512	·173206	·168900	·164593	·160287	·155981	·151675	·147369	·143062
19	·138756	·134450	·130144	·125837	·121531	·117225	·112919	·108613	·104306	·100000
20	·095694	·091388	·087081	·082775	·078469	·074163	·069857	·065550	·061244	·056938
21	·052632	·048325	·044019	·039713	·035407	·031101	·026794	·022488	·018182	·013786
22	·009569	·005263	·000957							

Proportional deduction for 2nd and 3rd decimal figures.

2nd figs	THIRD FIGURES.									
	0	1	2	3	4	5	6	7	8	9
0	0000	0043	0086	0129	0172	0215	0258	0301	0344	0388
1	0431	0474	0517	0560	0603	0646	0689	0732	0775	0818
2	0861	0904	0947	0990	1033	1077	1120	1163	1206	1249
3	1292	1335	1378	1421	1464	1507	1550	1593	1636	1679
4	1722	1766	1809	1852	1895	1938	1981	2024	2067	2110
5	2153	2196	2239	2282	2325	2368	2411	2455	2498	2541
6	2584	2627	2670	2713	2756	2799	2842	2885	2928	2971
7	3014	3057	3100	3143	3187	3230	3273	3316	3359	3402
8	3445	3488	3531	3574	3617	3660	3703	3746	3789	3833
9	3876	3919	3962	4005	4048	4091	4134	4177	4220	4263

TABLE VI.—CONVERSION TABLE 4½ per cent.

Years	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9
0	·954653	·950118	·945584	·941049	·936514	·931979	·927445	·922910	·918375	·913841
1	·909306	·904771	·900237	·895072	·891167	·886632	·882098	·877563	·873028	·868494
2	·863959	·859424	·854890	·850355	·845820	·841285	·836751	·832216	·827681	·823147
3	·818612	·814077	·809543	·805008	·800473	·795938	·791404	·786869	·782334	·777800
4	·773265	·768730	·764196	·759661	·755126	·750591	·746057	·741522	·736987	·732453
5	·727918	·723383	·718849	·714314	·709779	·705244	·700710	·696175	·691640	·687106
6	·682571	·678036	·673502	·668967	·664432	·659897	·655363	·650828	·646293	·641759
7	·637224	·632689	·628155	·623620	·619085	·614550	·610016	·605481	·600946	·596412
8	·591877	·587342	·582808	·578273	·573738	·569203	·564669	·560134	·555599	·551065
9	·546530	·541995	·537461	·532926	·528391	·523856	·519322	·514787	·510252	·505718
10	·501183	·496648	·492114	·487579	·483044	·478509	·473975	·469440	·464905	·460371
11	·455836	·451301	·446767	·442232	·437697	·433162	·428628	·424093	·419558	·415024
12	·410489	·405954	·401420	·396885	·392350	·387815	·383281	·378746	·374211	·369677
13	·365142	·360607	·356073	·351538	·347003	·342468	·337934	·333399	·328864	·324330
14	·319795	·315260	·310726	·306191	·301656	·297121	·292620	·288052	·283517	·278983
15	·274448	·269913	·265379	·260844	·256309	·251774	·247240	·242705	·238170	·233636
16	·229101	·224566	·220032	·215497	·210962	·206427	·201893	·197358	·192823	·188289
17	·183754	·179219	·174685	·170150	·165615	·161080	·156546	·152011	·147476	·142942
18	·138407	·133872	·129338	·124803	·120268	·115773	·111199	·106664	·102129	·097595
19	·093060	·088525	·083991	·079456	·074921	·070386	·065852	·061317	·056782	·052248
20	·047713	·043178	·038644	·034109	·029574	·025039	·020505	·015970	·011435	·006901

Proportional deduction for 2nd and 3rd decimal figures.

2nd figs	THIRD FIGURES.									
	0	1	2	3	4	5	6	7	8	9
0	0000	0045	0091	0136	0181	0227	0272	0317	0363	0408
1	0453	0499	0544	0590	0635	0680	0726	0771	0816	0862
2	0907	0952	0998	1043	1088	1134	1179	1224	1270	1315
3	1360	1406	1451	1496	1542	1587	1632	1678	1723	1769
4	1814	1859	1905	1950	1995	2041	2086	2131	2177	2222
5	2267	2313	2358	2403	2449	2494	2539	2585	2630	2675
6	2721	2766	2812	2857	2902	2948	2993	3038	3084	3129
7	3174	3220	3265	3310	3356	3401	3446	3492	3537	3582
8	3628	3673	3718	3764	3809	3854	3900	3945	3991	4036
9	4081	4127	4172	4217	4263	4308	4353	4399	4444	4489

TABLE VII.—CONVERSION TABLE 5 per cent.

Years	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9
0	·952381	·947619	·942857	·938095	·933333	·928571	·923810	·919048	·914286	·909524
1	·904762	·900000	·895238	·890476	·885714	·880952	·876190	·871429	·866667	·861905
2	·857143	·852381	·847619	·842857	·838095	·833333	·828571	·823810	·819048	·814286
3	·809524	·804762	·800000	·795238	·790476	·785714	·780952	·776190	·771429	·766667
4	·761905	·757143	·752381	·747619	·742857	·738095	·733333	·728571	·723810	·719048
5	·714286	·709524	·704762	·700000	·695238	·690476	·685714	·680952	·676190	·671429
6	·666667	·661905	·657143	·652381	·647619	·642857	·638095	·633333	·628571	·623810
7	·619048	·614286	·609524	·604762	·600000	·595238	·590476	·585714	·580952	·576190
8	·571429	·566667	·561905	·557143	·552381	·547619	·542857	·538095	·533333	·528571
9	·523810	·519048	·514286	·509524	·504762	·500000	·495238	·490476	·485714	·480952
10	·476190	·471429	·466667	·461905	·457143	·452381	·447619	·442857	·438095	·433333
11	·428571	·423810	·419048	·414286	·409520	·404762	·400000	·395238	·390476	·385714
12	·380952	·376190	·371429	·366667	·361905	·357143	·352381	·347619	·342857	·338095
13	·333333	·328571	·323810	·319048	·314286	·300524	·304762	·300000	·295238	·290476
14	·285714	·280952	·276190	·271429	·266667	·261905	·257143	·252381	·247619	·242857
15	·238095	·233333	·228571	·223810	·219048	·214286	·200524	·204762	·200000	·195238
16	·190476	·185714	·180952	·176190	·171429	·166667	·161905	·157143	·152381	·147619
17	·142857	·138095	·133333	·128571	·123810	·119048	·114286	·100524	·104762	·100000
18	·095238	·090476	·085714	·080952	·076190	·071429	·066667	·061905	·057143	·052381
19	·047619	·042857	·038095	·033333	·028571	·023810	·019048	·014286	·009524	·004762
20	·000000									

Proportional deduction for 2nd and 3rd decimal figures.

2nd figs	THIRD FIGURES.									
	0	1	2	3	4	5	6	7	8	9
0	0000	0048	0095	0143	0190	0238	0286	0333	0381	0429
1	0476	0524	0571	0619	0667	0714	0762	0810	0857	0905
2	0952	1000	1048	1095	1143	1190	1238	1286	1333	1381
3	1429	1476	1524	1571	1619	1667	1714	1762	1810	1857
4	1905	1952	2000	2048	2095	2143	2190	2238	2286	2333
5	2381	2429	2476	2524	2571	2619	2667	2714	2762	2810
6	2857	2905	2952	3000	3048	3095	3143	3190	3238	3286
7	3333	3381	3429	3476	3524	3571	3619	3667	3714	3762
8	3810	3857	3905	3952	4000	4048	4095	4143	4190	4238
9	4286	4333	4381	4429	4476	4524	4571	4619	4667	4714

TABLE VIII.—TABLE SHOWING THE COMPARATIVE RESULTS brought out by the Use of Various Formulæ in Valuing Contingent Reversions to £1. Carlisle Table of Mortality.

Ages x y	Average annual premium for £100, without profits, to be paid at the death of the younger life if that should happen before the elder	Equivalent annual premiums for £1* P	$1-\left(d_5'+P\right)\left(1+a_{xy}\right)^{3\frac{1}{2}}$ $d_5'=.047619$	$1-\left(d_{4\frac{1}{2}}'+P\right)\left(1+a_{xy}\right)^{3\frac{1}{2}}$ $d_{4\frac{1}{2}}'=.043062$	$1-\left(d_6'+P\right)\left(1+a_{xy}\right)^{6}$ $d_6'=.056604$	$1-\left(d_{5\frac{1}{2}}'+P\right)\left(1+a_{xy}\right)^{5\frac{1}{2}}$ $d_{5\frac{1}{2}}'=.052133$	‡ 20% $A\,\overline{xy6}\,A^1_{xy3}$	‡ 20% $A\,\overline{xy5\frac{1}{2}}\,A^1_{xy3}$	‡ 15% $A\,\overline{xy6}\,A^1_{xy3}$	‡ 15% $A\,\overline{xy5\frac{1}{2}}\,A^1_{xy3}$	$A\,\overline{xy6}\,A^1_{xy6}$ †	$A\,\overline{xy5\frac{1}{2}}\,A^1_{xy5\frac{1}{2}}$ †
	£ s. d.											
25 50	1 3 10	·011917	·215851	·275872	·266277	·287316	·222484	·248516	·22963	·25567	·291869	·311039
55	0 19 6	·009750	·324078	·377769	·350394	·372816	·300267	·326052	·30634	·33212	·355708	·375954
60	0 18 8	·009333	·413736	·460646	·423447	·445823	·384095	·409009	·38913	·41405	·427400	·447866
65	0 17 10	·008917	·488462	·529694	·485070	·507204	·453934	·477967	·45815	·48218	·488315	·508507
70	0 16 9	·008375	·577693	·612062	·564251	·585157	·540708	·562870	·54403	·56619	·565553	·585471
30 55	1 6 7	·013292	·292884	·345786	·324385	·345619	·284796	·310496	·29181	·31750	·348100	·367786
60	1 5 7	·012792	·386043	·432356	·400072	·421323	·370638	·395309	·37648	·40115	·420070	·440116
65	1 4 7	·012292	·463916	·504692	·463920	·485244	·441856	·465749	·44676	·47056	·480676	·500951
70	1 3 5	·011708	·556709	·590759	·545862	·566009	·529954	·551857	·53385	·55577	·558700	·578036
35 60	1 9 1	·014542	·375220	·421022	·390635	·411526	·356907	·381594	·36351	·38819	·413276	·432759
65	1 7 10	·013917	·454237	·494653	·455507	·476422	·431491	·454272	·43701	·45979	·474393	·494241
70	1 6 6	·013250	·548352	·582165	·538335	·558338	·520836	·542774	·52521	·54715	·553209	·572268
40 65	1 12 10	·016417	·440197	·480035	·443434	·463733	·414004	·437604	·42044	·44404	·464995	·484125
70	1 11 3	·015625	·536358	·569766	·527911	·547309	·507326	·528989	·51244	·53410	·544599	·563186
45 70	1 15 0	·017500	·525608	·558806	·518176	·537428	·496021	·517740	·50170	·52342	·538734	·556916

* These annual premiums, which are the average ones charged by the offices, are about equal to the Carlisle 3 per cent. premiums, with a loading of 15 per cent.

† These can only be considered theoretical values. In cases of large reversions, a great part of the contingent assurance *must* be effected, and that with offices other than the one making the loan or purchase. Such offices, deriving no benefit from the loan or purchase, will evidently require a margin of profit on the insurance, and are not likely to take any share of such risks at less than the Carlisle 3 per cent. premiums, with a 15 per cent. loading for expenses and profits. Furthermore, these matters are generally introduced to companies by some third party, who requires a commission on the insurance; so that even the company making the loan or purchase—which, in consideration of the profit made thereon, might perhaps be willing in cases where, owing to the contingency involved being moderate in amount, they could retain the whole of the insurance at their own risk, to forego any margin of profit on the insurance—would, at all events, have to charge sufficient to cover such commission, medical examination fee, &c. &c.

‡ The percentage written over the A signifies to what extent the present value of the assurance has been loaded.

TABLE IX.—TABLE showing the sum to be assured to cover the risk incident on the purchase of an annuity of £1, whether immediate or not, and the redemption money for the same.

Age	Average non-participating Premium	4½ per cent.		5 per cent.		5½ per cent.		6 per cent.	
		Policy	Redemption Money	Policy	Redemption Money	Policy	Redemption Money	Policy	Redemption Money
	Px	$\frac{1}{Px+d_{4\frac{1}{2}}}$	$\frac{1-d_{4\frac{1}{2}}}{Px+d_{4\frac{1}{2}}}$	$\frac{1}{Px+d_5}$	$\frac{1-d_5}{Px+d_5}$	$\frac{1}{Px+d_{5\frac{1}{2}}}$	$\frac{1-d_{5\frac{1}{2}}}{Px+d_{5\frac{1}{2}}}$	$\frac{1}{Px+d_6}$	$\frac{1-d_6}{Px+d_6}$
	£ s. d.								
20	1 15 1	16·501	15·790	15·347	14·616	14·352	13·604	13·488	12·724
25	1 19 6	15·920	15·235	14·843	14·136	13·912	13·186	13·098	12·356
30	2 4 9	15·282	14·624	14·286	13·606	13·421	12·722	12·661	11·945
35	2 11 2	14·568	13·940	13·661	13·010	12·867	12·197	12·168	11·479
40	2 19 2	13·765	13·173	12·953	12·336	12·238	11·600	11·604	10·947
45	3 9 7	12·845	12·291	12·134	11·556	11·504	10·904	10·942	10·323
50	4 3 6	11·791	11·283	11·189	10·656	10·652	10·096	10·168	9·592
55	5 2 0	10·631	10·173	10·140	9·657	9·696	9·191	9·294	8·768
60	6 7 8	9·355	8·952	8·973	8·546	8·622	8·173	8·304	7·834

The following tables are all based on the Carlisle mortality.

TABLE X.—VALUES OF REVERSIONARY LIFE ANNUITIES, as found by the formula $\frac{1}{P+d_5}-(1+a_{xy})_{3\frac{1}{2}}$.

Younger age x	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	25	30	35	40	45	50
20	−1·308	−·689	·098	·907	1·990	3·422	4·946	6·221	7·753
25	−·864	−·129	·633	1·672	3·061	4·549	5·795	7·301	8·709
30	−·350	·354	1·338	2·677	4·123	5·338	6·814	8·201	9·204
35	·014	·929	2·208	3·610	4·792	6·241	7·608	8·598	
40	·549	1·742	3·075	4·211	5·622	6·962	7·935		
45	1·156	2·404	3·480	4·849	6·167	7·130			
50	1·767	2·739	4·023	5·286	6·216				
55	2·137	3·278	4·436	5·297					
60	2·547	3·574	4·347						

TABLE XI.—As found by the formula $\frac{1}{P+d_{4\frac{1}{2}}}-(1+a_{xy})_{3\frac{1}{2}}$.

Younger age x	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	25	30	35	40	45	50
20	−·153	·466	1·253	2·062	3·145	4·577	6·101	7·376	8·908
25	·214	·949	1·711	2·750	4·139	5·627	6·873	8·379	9·787
30	·648	1·352	2·336	3·675	5·121	6·336	7·812	9·199	10·202
35	·926	1·835	3·114	4·516	5·698	7·147	8·514	9·504	
40	1·363	2·556	3·889	5·025	6·436	7·776	8·749		
45	1·867	3·115	4·191	5·560	6·878	7·841			
50	2·369	3·341	4·625	5·888	6·818				
55	2·629	3·770	4·928	5·789					
60	2·929	3·956	4·629						

TABLE XII.—As found by the formulæ

$$\frac{1}{P+d6}\times\left[1-(d_6+P)(1+a_{xy})_6\right]=\frac{1}{P+d_6}-1-(a_{xy})_6=\frac{1}{P+d_6}-(1+a_{xy})_6$$

Younger age x	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	25	30	35	40	45	50
20	·841	1·155	1·584	2·014	2·654	3·596	4·665	5·569	6·741
25	·958	1·364	1·774	2·389	3·307	4·353	5·238	6·391	7·532
30	1·136	1·520	2·108	2·996	4·017	4·881	6·014	7·138	7·965
35	1·199	1·753	2·608	3·602	4·446	5·558	6·669	7·486	
40	1·406	2·214	3·167	3·981	5·067	6·157	6·961		
45	1·698	2·602	3·379	4·439	5·514	6·310			
50	2·040	2·750	3·752	4·787	5·560				
55	2·220	3·119	4·076	4·794					
60	2·487	3·344	3·993						

TABLE XIII.—VALUES OF REVERSIONARY LIFE ANNUITIES, as found by the formulæ

$$\frac{1}{P+d_{5\frac{1}{2}}} \times \left[1-(d_{5\frac{1}{2}}+P)\,(1+a_{xy})_{5\frac{1}{2}}\right] = \frac{1}{P+d_{5\frac{1}{2}}} - 1 - (a_{xy})_{5\frac{1}{2}} = \frac{1}{P+d_{5\frac{1}{2}}} - (1+a_{xy})_{5\frac{1}{2}}$$

Younger age x	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	25	30	35	40	45	50
20	1·059	1·414	1·895	2·383	3·089	4·108	5·254	6·219	7·452
25	1·188	1·629	2·103	2·785	3·777	4·896	5·840	7·056	8·243
30	1·379	1·810	2·457	3·419	4·508	5·431	6·623	7·794	8·652
35	1·445	2·057	2·978	4·041	4·940	6·112	7·267	8·114	
40	1·662	2·534	3·547	4·415	5·557	6·692	7·527		
45	1·958	2·919	3·747	4·861	5·978	6·804			
50	2·295	3·048	4·100	5·175	5·976				
55	2·454	3·406	4·389	5·133					
60	2·695	3·582	4·253						

TABLE XIV.—As found by the formula $\left[\frac{1}{P+d_{5\frac{1}{2}}} - (1+a_{xy})_{5\frac{1}{2}}\right] - \frac{1}{2}A_{xy}$.

Younger age x.	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	25	30	35	40	45	50
20	·905	1·251	1·720	2·245	2·883	3·875	4·991	5·981	7·132
25	1·020	1·449	1·911	2·575	3·541	4·631	5·550	6·732	7·891
30	1·193	1·613	2·243	3·180	4·241	5·139	6·300	7·441	8·276
35	1·242	1·839	2·736	3·771	4·647	5·778	6·913	7·738	
40	1·438	2·287	3·274	4·119	5·231	6·337	7·150		
45	1·707	2·643	3·449	4·534	5·622	6·427			
50	2·013	2·747	3·771	4·818	5·598				
55	2·143	3·070	4·027	4·752					
60	2·349	3·213	3·867						

TABLE XV.—As found by the formula $\left[\frac{1}{P+d_6} - (1+a_{xy})_6\right] - \frac{1}{2}A_{xy}$.

Younger age x.	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	25	30	35	40	45	50
20	·700	1·005	1·422	1·840	2·462	3·377	4·416	5·294	6·433
25	·803	1·197	1·595	2·193	3·085	4·101	4·961	6·082	7·190
30	·961	1·334	1·906	2·769	3·761	4·600	5·701	6·793	7·597
35	1·010	1·549	2·380	3·345	4·166	5·246	6·326	7·119	
40	1·196	1·981	2·907	3·698	4·753	5·812	6·593		
45	1·461	2·339	3·094	4·124	5·169	5·942			
50	1·771	2·461	3·435	4·440	5·191				
55	1·921	2·795	3·725	4·422					
60	2·153	2·985	3·621						

Mr. Sprague says with regard to the formula as per Tables 12 and 13, that "it is to be observed that the Reversionary Annuity runs in practice from the death of y, whereas it is virtually supposed in the said formula that it runs from the end of the preceding year; for the tabular Annuity, a_{xy} is the value of an Annuity which ceases at the end of the year before that in which the joint existence of the two lives x and y fails. By the formula referred to therefore the purchaser of the Reversionary Annuity is supposed to receive on the average half-a-year's Annuity in the event of y dying before x, which he will not receive in practice. In strictness then there should be subtracted $\frac{1}{2}A^{\frac{1}{1}}_{xy}$. It may perhaps be considered that in most cases a_{xy} will practically purchase an Annuity payable up to the day of the failure of the joint lives (or a complete Annuity), but this will certainly not be the case when y is very old, and in that case the formula referred to will give too large a value to the Reversionary Annuity."

In the formula made use of in Tables XIV. and XV. $\frac{1}{2}A_{xy}$ has been substituted for $\frac{1}{2}A^{\frac{1}{1}}_{xy}$ the latter being troublesome to calculate, while the former is nearly equal to it in the common case of y being much older than x. The substitution of A_{xy} for $A^{\frac{1}{1}}_{xy}$ is in favour of the purchaser.

TABLE XVI.—VALUES OF REVERSIONARY LIFE ANNUITIES, as found by the formula $\frac{1}{P+d_5} \times [1-(d_6+P)(1+a_{xy})_6]$.

ounger age x	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	25	30	35	40	45	50
20	·957	1·314	1·802	2·301	3·019	4·091	5·307	6·336	7·669
25	1·085	1·546	2·010	2·707	3·747	4·933	5·935	7·242	8·535
30	1·281	1·714	2·378	3·380	4·532	5·506	6·785	8·053	8·986
35	1·346	1·968	2·928	4·044	4·991	6·240	7·487	8·404	
40	1·569	2·471	3·535	4·443	5·655	6·872	7·770		
45	1·884	2·886	3·748	4·923	6·116	6·998			
50	2·245	3·026	4·129	5·268	6·119				
55	2·422	3·403	4·447	5·231					
60	2·687	3·613	4·315						

$\frac{1}{P+d} \times [1-(d+P)(1+a_{xy})] = \frac{1}{P+d} - (1+a_{xy})$ only when d is taken at the same rate of interest outside as inside the brackets.

TABLE XVII.—As found by the formula $\frac{1}{P+d_{4\frac{1}{2}}} \times [1-(d_{5\frac{1}{2}}+P)(1+a_{xy})_{5\frac{1}{2}}]$.

Younger age x	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	25	30	35	40	45	50
20	1·218	1·626	2·178	2·741	3·547	4·719	6·039	7·145	8·564
25	1·360	1·863	2·404	3·184	4·313	5·602	6·682	8·073	9·431
30	1·569	1·948	2·798	3·893	5·133	6·184	7·542	8·874	9·851
35	1·636	2·417	3·452	4·647	5·657	6·975	8·228	9·186	
40	1·869	2·849	3·989	4·965	6·250	7·527	8·466		
45	2·186	3·259	4·183	5·427	6·674	7·596			
50	2·540	3·373	4·538	5·728	6·613				
55	2·691	3·735	4·812	5·628					
60	2·924	3·887	4·615						

TABLE XVIII.—As found by the formula $\frac{1}{P+d_{4\frac{1}{2}}} - \frac{1}{2} - \left[\left(1+a_{xy}\right)_{5\frac{1}{2}} \times \left(\frac{P+d_{5\frac{1}{2}}}{P+d_{4\frac{1}{2}}} - \frac{d_{5\frac{1}{2}}}{2}\right)\right]$

Younger Age x	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	25	30	35	40	45	50
20	1·065	1·464	2·004	2·553	3·346	4·491	5·778	6·863	8·248
25	1·192	1·684	2·214	2·977	4·086	5·337	6·393	7·753	9·080
30	1·385	1·865	2·585	3·655	4·865	5·893	7·219	8·522	9·476
35	1·434	2·111	3·130	4·306	5·300	6·597	7·874	8·811	
40	1·644	2·602	3·715	4·669	5·924	7·171	8·089		
45	1·936	2·982	3·887	5·111	6·319	6·820			
50	2·258	3·072	4·209	5·371	6·237				
55	2·379	3·398	4·450	5·247					
60	2·557	3·499	4·213						

TABLE XIX.—As found by the formula $\frac{1}{P+d_5} - \frac{1}{2} - \left[\left(1+a_{xy}\right)_6 \times \left(\frac{P+d_6}{P+d_5} - \frac{d_6}{2}\right)\right]$

Younger Age x	DIFFERENCE OF AGE $=y-x$.								
	10	15	20	55	30	35	40	45	50
20	·816	1·165	1·640	2·118	2·828	3·873	5·059	6·062	7·362
25	·930	1·378	1·831	2·511	3·525	4·681	5·659	6·933	8·194
30	1·107	1·530	2·177	3·153	4·276	5·227	6·473	7·710	8·619
35	1·157	1·764	2·700	3·787	4·711	5·928	7·144	8·038	
40	1·359	2·238	3·275	4·160	5·342	6·528	7·402		
45	1·646	2·623	3·462	4·608	5·770	6·630			
50	1·976	2·737	3·811	4·921	5·750				
55	2·123	3·078	4·095	4·858					
60	2·353	3·255	3·938						

TABLE XX.—REVERSIONARY ANNUITY WHICH £1 WILL PURCHASE AND ITS REDEMPTION MONEY (CARLISLE).

Ages	$\frac{1}{P+d_5}-(1+a_{xy})_{5\frac{1}{2}}$		$\frac{1}{P+d_{5\frac{1}{2}}}-(1+a_{xy})_{5\frac{1}{2}}$		$\frac{1}{P+d_6}-(1+a_{xy})_6$		$\frac{1}{P+d_{6\frac{1}{2}}}-(1+a_{xy})_{6\frac{1}{2}}$		$\left[\frac{1}{P+d_6}-(1+a_{xy})_6\right]-1A_{xy}$	
x y	Annuity	Redemption Money	Annuity	Redemption Money	Annuity	Redemption Money	Annuity	Redemption Money	Annuity	Redemption Money
DIFFERENCE OF AGE 10 YEARS.										
20 30	...	...	...	...	1·1891	15·130	·9442	12·845	1·4286	18·178
25 35	...	...	4·6729	71·192	1·0438	12·897	·8418	11·100	1·2453	15·387
30 40	...	...	1·5432	22·568	·8803	10·515	·7252	9·226	1·0406	12·429
35 45	71·4286	929·286	1·0870	15·153	·8340	9·130	·6920	8·440	·9901	11·366
40 50	1·8215	22·470	·7337	9·665	·7112	7·786	·6017	6·980	·8361	9·153
45 55	·8651	9·997	·5356	6·583	·5889	6·079	·5107	5·569	·6845	7·066
50 60	·5659	6·030	·4221	4·762	·4902	4·702	·4357	4·399	·5647	5·416
55 65	·4679	4·519	·3804	3·870	·4505	3·950	·4075	3·745	·5206	4·564
60 70	·3926	3·355	·3414	3·056	·4021	3·150	·3711	3·033	·4645	3·639
DIFFERENCE OF AGE 15 YEARS.										
20 35	...	...	2·1459	33·884	·8658	11·016	·7072	9·621	·9950	12·661
25 40	...	...	1·0537	16·053	·7331	9·058	·6139	8·095	·8354	10·322
30 45	2·8249	38·435	·7396	10·816	·6579	7·859	·5525	7·029	·7496	8·954
35 50	1·0764	14·004	·5450	7·597	·5705	6·245	·4861	5·929	·6456	7·411
40 55	·5741	7·082	·3912	5·153	·4517	4·945	·3946	4·577	·5048	5·526
45 60	·4160	4·807	·3210	3·945	·3843	3·967	·3426	3·736	·4275	4·413
50 65	·3651	3·891	·2993	3·377	·3636	3·488	·3281	3·312	·4063	3·897
55 70	·3051	2·946	·2653	2·699	·3206	2·811	·2936	2·698	·3578	3·137
60 75	·2798	2·391	·2528	2·263	·2990	2·342	·2792	2·282	·3350	2·624
DIFFERENCE OF AGE 20 YEARS.										
20 40	10·2041	149·142	·7981	12·602	·6313	8·033	·5277	7·179	·7032	8·948
25 45	1·5798	22·331	·5845	8·905	·5637	6·965	·4755	6·270	·6270	7·747
30 50	·7474	10·169	·4281	6·261	·4744	5·667	·4070	5·178	·5247	6·267
35 55	·4529	5·892	·3211	4·476	·3834	4·197	·3358	4·096	·4202	4·824
40 60	·3252	4·012	·2571	3·387	·3158	3·457	·2819	3·270	·3440	3·766
45 65	·2874	3·321	·2386	2·933	·2959	3·055	·2669	2·910	·3232	3·336
50 70	·2486	2·649	·2162	2·439	·2665	2·556	·2439	2·462	·2911	2·792
55 75	·2254	2·177	·2029	2·064	·2453	2·151	·2278	2·094	·2685	2·354
60 80	·2300	1·966	·2160	1·934	·2504	1·962	·2351	1·921	·2762	2·164

DIFFERENCE OF AGE 25 YEARS.

20	45	1·1025	16·114	·4850	7·658	·4965	6·317	·4196	5·708	·5435	6·916
25	50	·5981	8·455	·3636	5·539	·4186	5·172	·3591	4·735	·4560	5·634
30	55	·3736	5·083	·2721	3·979	·3338	3·987	·2925	3·721	·3611	4·313
35	60	·2770	3·604	·2214	3·086	·2776	3·039	·2475	3·019	·2990	3·432
40	65	·2375	2·930	·1990	2·621	·2512	2·750	·2265	2·627	·2704	2·960
45	70	·2062	2·383	·1799	2·211	·2253	2·326	·2057	2·243	·2425	2·503
50	75	·1892	2·016	·1698	1·916	·2088	2·003	·1932	1·951	·2252	2·160
55	80	·1888	1·823	·1727	1·757	·2086	1·829	·1948	1·790	·2261	1·982

DIFFERENCE OF AGE 30 YEARS.

20	50	·5025	7·345	·3180	5·021	·3768	4·794	·3237	4·404	·4062	5·169
25	55	·3267	4·618	·2416	3·681	·3024	3·736	·2648	3·492	·3241	4·005
30	60	·2425	3·299	·1953	2·856	·2489	2·973	·2218	2·822	·2659	3·176
35	65	·2087	2·715	·1755	2·446	·2249	2·462	·2024	2·469	·2400	2·755
40	70	·1779	2·195	·1554	2·047	·1974	2·161	·1800	2·088	·2104	2·303
45	75	·1622	1·874	·1454	1·787	·1814	1·873	·1673	1·824	·1935	1·997
50	80	·1609	1·715	·1467	1·655	·1799	1·726	·1673	1·689	·1926	1·848

DIFFERENCE OF AGE 35 YEARS.

20	55	·2922	4·271	·2185	3·450	·2781	3·539	·2434	3·311	·2961	3·768
25	60	·2198	3·107	·1777	2·707	·2297	2·838	·2042	2·693	·2438	3·012
30	65	·1873	2·548	·1578	2·308	·2049	2·447	·1841	2·342	·2174	2·597
35	70	·1602	2·084	·1399	1·950	·1799	1·969	·1636	1·995	·1906	2·188
40	75	·1436	1·732	·1286	1·694	·1624	1·778	·1494	1·733	·1721	1·884
45	80	·1403	1·621	·1274	1·566	·1585	1·636	·1470	1·603	·1683	1·737

DIFFERENCE OF AGE 40 YEARS.

20	60	·2022	2·955	·1639	2·588	·2144	2·728	·1903	2·589	·2264	2·881
25	65	·1726	2·440	·1455	2·217	·1909	2·359	·1712	2·257	·2016	2·491
20	70	·1468	1·997	·1280	1·872	·1663	1·986	·1510	1·921	·1754	2·095
35	75	·1314	1·710	·1175	1·638	·1499	1·641	·1376	1·678	·1581	1·815
40	80	·1260	1·554	·1143	1·506	·1437	1·573	·1329	1·542	·1517	1·661

DIFFERENCE OF AGE 45 YEARS.

20	65	·1607	2·349	·1356	2·141	·1796	2·285	·1608	2·188	·1889	2·404
25	70	·1370	1·937	·1193	1·818	·1565	1·934	·1417	1·868	·1644	2·031
30	75	·1219	1·659	·1087	1·590	·1401	1·673	·1283	1·632	·1472	1·758
35	80	·1163	1·513	·1052	1·466	·1336	1·463	·1232	1·503	·1405	1·613

DIFFERENCE OF AGE 50 YEARS.

20	70	·1290	1·886	·1123	1·773	·1483	1·887	·1342	1·826	·1554	1·977
25	75	·1148	1·623	·1022	1·557	·1328	1·641	·1213	1·599	·1391	1·719
30	80	·1086	1·478	·0980	1·433	·1255	1·499	·1156	1·471	·1316	1·572

TABLE XX.—REVERSIONARY ANNUITY WHICH £1 WILL PURCHASE AND ITS REDEMPTION MONEY (CARLISLE)—*continued.*

Ages	$\left[\frac{1}{P+d_{5\frac{1}{2}}}-\left(1+a_{xy}\right)_{5\frac{1}{2}}\right]-\frac{1}{2}A_{xy}$		$\frac{1}{P+d_5}\times\left[1-\left(d_6+\ \right)\left(1+a_{xy}\right)_6\right]$		$\frac{1}{P+d_{4\frac{1}{2}}}\times\left[1-\left(d_{5\frac{1}{2}}+P\right)\left(1+a_{xy}\right)_{5\frac{1}{2}}\right]$		$\frac{1}{P+d_5}-\frac{1}{2}-\left[\left(1+a_{xy}\right)_6\times\left(\frac{P+d_6}{P+d_5}-\frac{d_6}{2}\right)\right]$		$\frac{1}{P+d_{4\frac{1}{2}}}-\frac{1}{2}-\left[\left(1+a_{xy}\right)_{5\frac{1}{2}}\times\left(\frac{P+d_{5\frac{1}{2}}}{P+d_{4\frac{1}{2}}}-\frac{d_{5\frac{1}{2}}}{2}\right)\right]$	
x y	Annuity	Redemption Money	Annuity	Redemption Money	Annuity	Redemption Money	Annuity	Redemption Money	Annuity	Redemption Money
DIFFERENCE OF AGE 10 YEARS.										
20 30	1·1050	15·032	1·0449	15·272	·8210	12·964	1·2255	17·912	·9390	14·827
25 35	·9804	12·928	·9217	13·029	·7353	11·202	1·0753	15·200	·8389	12·781
30 40	·8382	10·664	·7806	10·621	·6373	9·320	·9033	12·290	·7220	10·559
35 45	·8052	9·821	·7429	9·665	·6112	8·520	·8643	11·245	·6974	9·722
40 50	·6954	8·067	·6373	7·862	·5350	7·048	·7358	9·077	·6083	8·013
45 55	·5858	6·388	·5308	6·134	·4575	5·623	·6075	7·020	·5165	6·348
50 60	·4967	5·015	·4454	4·746	·3937	4·442	·5061	5·393	·4429	4·997
55 65	·4666	4 289	·4129	3·987	·3716	3·780	·4710	4·549	·4203	4·276
60 70	·4257	3·479	·3722	3·181	·3420	3·062	·4250	3·632	·3911	3·501
DIFFERENCE OF AGE 15 YEARS.										
20 35	·7994	10·886	·7610	11·123	·6150	9·711	·8584	12·546	·6831	10·786
25 40	·6901	9·100	·6468	9·143	·5368	8·178	·7257	10·259	·5938	9·047
30 45	·6200	7·888	·5834	7·938	·5133	7·506	·6536	8·893	·5362	7·841
35 50	·5438	6·633	·5081	6·610	·4137	5·767	·5669	7·376	·4737	6·603
40 55	·4373	5·073	·4047	4·992	·3510	4·624	·4468	5·512	·3843	5·062
45 60	·3784	4·126	·3465	4·004	·3068	3·770	·3812	4·405	·3353	4·121
50 65	·3640	3·675	·3305	3·522	·2965	3·345	·3654	3·894	·3255	3·673
55 70	·3257	2·994	·2939	2·838	·2677	2·723	·3249	3·138	·2943	2·994
60 75	·3112	2·543	·2768	2·365	·2573	2·303	·3072	2·625	·2858	2·558
DIFFERENCE OF AGE 20 YEARS.										
20 40	·5814	7·909	·5549	8·110	·4591	7·249	·6098	8·913	·4990	7·879
25 45	·5233	6·900	·4975	7·033	·4160	6·338	·5461	7·720	·4516	6·880
30 50	·4458	5·671	·4205	5·721	·3574	5·227	·4593	6·249	·3868	5·657
35 55	·3655	4·458	·3449	4·487	·2897	4·038	·3704	4·819	·3195	4·454
40 60	·3054	3·543	·2829	3·490	·2507	3·302	·3053	3·766	·2692	3·546
45 65	·2900	3·162	·2668	3·083	·2391	2·939	·2889	3·339	·2573	3·162
50 70	·2652	2·677	·2422	2·581	·2204	2·487	·2624	2·796	·2376	2·681
55 75	·2483	2·282	·2249	2·172	·2078	2·114	·2442	2·358	·2247	2·286
60 80	·2586	2·114	·2317	1·980	·2167	1·940	·2539	2·170	·2374	2·125

DIFFERENCE OF AGE 25 YEARS.

20	45	·4454	6·059	·4346	6·352	·3648	5·760	·4721	6·900	·3917	6·185
25	50	·3883	5·120	·3694	5·222	·3141	4·785	·3982	5·629	·3359	5·117
30	55	·3145	4·001	·2959	4·026	·2569	3·757	·3172	4·316	·2736	4·001
35	60	·2652	3·235	·2473	3·217	·2152	3·000	·2641	3·436	·2322	3·237
40	65	·2428	2·816	·2251	2·777	·2014	2·653	·2404	2·966	·2142	2·822
45	70	·2206	2·405	·2031	2·347	·1843	2·265	·2170	2·508	·1957	2·405
50	75	·2076	2·096	·1898	2·022	·1746	1·970	·2032	2·165	·1862	2·101
55	80	·2104	1·934	·1912	1·846	·1777	1·808	·2058	1·988	·1906	1·939

DIFFERENCE OF AGE 30 YEARS.

20	50	·3469	4·719	·3312	4·841	·2819	4·451	·3536	5·168	·2989	4·720
25	55	·2824	3·724	·2669	3·773	·2318	3·531	·2837	4·010	·2447	3·728
30	60	·2358	3·000	·2207	3·003	·1948	2·849	·2339	3·182	·2055	3·005
35	65	·2152	2·625	·2004	2·607	·1768	2·465	·2123	2·762	·1887	2·630
40	70	·1912	2·218	·1768	2·181	·1600	2·108	·1872	2·309	·1688	2·224
45	75	·1779	1·940	·1635	1·889	·1498	1·841	·1733	2·003	·1583	1·946
50	80	·1786	1·803	·1634	1·741	·1512	1·706	·1739	1·853	·1603	1·809

DIFFERENCE OF AGE 35 YEARS.

20	55	·2581	3·511	·2444	3·572	·2119	3·346	·2582	3·774	·2227	3·516
25	60	·2159	2·847	·2027	2·865	·1785	2·719	·2136	3·020	·1874	2·855
30	65	·1946	2·476	·1816	2·471	·1617	2·365	·1913	2·603	·1697	2·482
35	70	·1731	2·111	·1603	2·086	·1434	1·999	·1687	2·195	·1516	2·113
40	75	·1578	1·830	·1455	1·795	·1329	1·751	·1532	1·890	·1395	1·838
45	80	·1556	1·697	·1429	1·651	·1316	1·617	·1508	1·743	·1466	1·702

DIFFERENCE OF AGE 40 YEARS.

20	60	·2004	2·726	·1884	2·754	·1656	2·615	·1977	2·890	·1731	2·733
25	65	·1802	2·376	·1685	2·382	·1497	2·281	·1767	2·498	·1564	2·383
30	70	·1587	2·019	·1474	2·006	·1326	1·939	·1545	2·102	·1385	2·025
35	75	·1447	1·765	·1336	1·738	·1215	1·694	·1400	1·822	·1270	1·770
40	80	·1399	1·623	·1287	1·588	·1181	1·556	·1351	1·667	·1236	1·628

DIFFERENCE OF AGE 45 YEARS.

20	65	·1672	2·275	·1578	2·306	·1400	2·211	·1650	2·412	·1457	2·301
25	70	·1485	1·958	·1381	1·952	·1239	1·888	·1442	2·039	·1290	1·965
30	75	·1344	1·710	·1242	1·690	·1127	1·648	·1297	1·765	·1173	1·715
35	80	·1292	1·576	·1190	1·548	·1089	1·518	·1244	1·619	·1135	1·582

DIFFERENCE OF AGE 50 YEARS.

20	70	·1402	1·907	·1304	1·906	·1168	1·844	·1358	1·985	·1212	1·914
25	75	·1267	1·671	·1172	1·657	·1060	1·615	·1220	1·725	·1101	1·677
30	80	·1208	1·537	·1113	1·514	·1015	1·484	·1160	1·578	·1055	1·543

RATES OF DUTY ON LEGACIES OR SUCCESSIONS.

Lineal issue or lineal ancestors of the predecessor	£1 per cent.
Brothers and sisters of the predecessor and their descendants	£3 ,,
Brothers and sisters of the father or mother of the predecessor and their descendants	£5 ,,
Brothers and sisters of a grandfather or grandmother of the predecessor and their descendants	£6 ,,
Any other person	£10 ,,

The husband or wife of the predecessor is not chargeable with duty; and a successor, whose husband or wife is of nearer relationship to the predecessor, is chargeable with duty at the lower rate. Interest at the rate of £4 per cent. per annum must be added on all duties in arrear.

SPECIMEN TABLE OF SOLICITORS' FEES IN CONVEYANCING TRANSACTIONS, CALCULATED ACCORDING TO GENERAL ORDER. (From the "Incorporated Law Society's Calendar' for 1883, page 289.)

Consideration Money up to	Vendor's or Purchaser's Solicitor for negotiating a Sale or Purchase by Private Contract	Vendor's Solicitor for Conducting a Sale by Public Auction		Vendor's, Purchaser's, Mortgagor's, or Mortgagee's Solicitor for Deducing or Investigating Title, &c.	Mortgagee's Solicitor for Negotiating Loans on Mortgages
		Where Property Sold	Where Property not Sold (Scale then calculated on Reserved Prices)		
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
*100 0 0	5 0 0	5 0 0	5 0 0	5 0 0	5 0 0
200 0 0	5 0 0	5 0 0	5 0 0	5 0 0	5 0 0
300 0 0	5 0 0	5 0 0	5 0 0	5 0 0	5 0 0
400 0 0	5 0 0	5 0 0	5 0 0	6 0 0	5 0 0
500 0 0	5 0 0	5 0 0	5 0 0	7 10 0	5 0 0
1,000 0 0	10 0 0	10 0 0	5 0 0	15 0 0	10 0 0
2,000 0 0	20 0 0	15 0 0	7 10 0	25 0 0	20 0 0
3,000 0 0	30 0 0	20 0 0	10 0 0	35 0 0	30 0 0
4,000 0 0	35 0 0	22 10 0	11 5 0	40 0 0	32 10 0
5,000 0 0	40 0 0	25 0 0	12 10 0	45 0 0	35 0 0
6,000 0 0	45 0 0	27 10 0	13 15 0	50 0 0	37 10 0
7,000 0 0	50 0 0	30 0 0	15 0 0	55 0 0	40 0 0
8,000 0 0	55 0 0	32 10 0	16 5 0	60 0 0	42 10 0
9,000 0 0	60 0 0	35 0 0	17 10 0	65 0 0	45 0 0
10,000 0 0	65 0 0	37 10 0	18 15 0	70 0 0	47 10 0
15,000 0 0	77 10 0	43 15 0	21 17 6	82 10 0	53 15 0
20,000 0 0	90 0 0	50 0 0	25 0 0	95 0 0	60 0 0
40,000 0 0	140 0 0	75 0 0	37 10 0	145 0 0	85 0 0
50,000 0 0	165 0 0	87 10 0	43 15 0	170 0 0	97 10 0

* In transactions under £100 the remuneration of the Solicitor for the Vendor, Purchaser, Mortgagor, or Mortgagee is to be £3.

Spottiswoode & Co., Printers, New-street Square, London.